DOCUMENT RESUME

ED 368 126 EC 302 881

AUTHOR Bang, Myong-Ye; And Others
TITLE Factors Related to the Use of Instructional Strategies that Facilitate Inclusion of Students with Moderate and Severe Impairments in General Education Classes.
PUB DATE 6 Nov 93
NOTE 24p.; Paper presented at the Annual Conference of the Association for Persons with Severe Handicaps (Chicago, IL, November 4-6, 1993).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Concurrent Validity; *Disabilities; Educational Practices; Elementary Secondary Education; Evaluation Methods; *Mainstreaming; *Measurement Techniques; Regular and Special Education Relationship; Self Efficacy; *Severe Disabilities; Social Integration; Teacher Attitudes; Teacher Behavior; Teacher Evaluation; *Teaching Methods
IDENTIFIERS *Inclusive Schools; Instructional Strategy Usage; Michigan

ABSTRACT

This study investigated whether the criterion-related validity coefficient of the Instructional Strategy Usage (ISU) instrument was statistically significant, and investigated factors related to general education teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes. Teachers (n=110) from 47 Michigan school districts completed the ISU, and 15 teachers were observed in their classrooms. Research findings indicated that: (1) the criterion-related validity coefficient of the ISU was statistically significant; (2) years of teaching experience of general education teachers was negatively related to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes; (3) general education teachers' training in the field of special education was unrelated to their use of instructional strategies that facilitate inclusion; (4) general education teachers' collaboration with special education teachers, including a building principals's support, was positively related to their use of instructional strategies that facilitate inclusion; and (5) self-perceived efficacy of general education teachers was unrelated to their use of instructional strategies that facilitate inclusion. (Contains 29 references.) (Author/JDD)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 368 126

SYSTEMS Inc.
Disability Research Systems, Inc.
2500 Kerry Street
Suite 208
Lansing, Michigan 48912

Research
Program Design
Training
Evaluation

Telephone (517) 485-5599
FAX (517) 485-6158

FACTORS RELATED TO THE USE OF INSTRUCTIONAL STRATEGIES THAT FACILITATE INCLUSION OF STUDENTS WITH MODERATE AND SEVERE IMPAIRMENTS IN GENERAL EDUCATION CLASSES

Presented at the conference of The Association for Persons with Severe Handicaps (TASH) in Chicago, Illinois

By
Myong-Ye Bang, Ph.D.
Donald A. Burke, Ed.D.
Lynn Sumpter, M.A.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Myong-Ye Bang
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

November 6, 1993

EC 302881

BEST COPY AVAILABLE

ABSTRACT

FACTORS RELATED TO THE USE OF INSTRUCTIONAL STRATEGIES THAT FACILITATE INCLUSION OF STUDENTS WITH MODERATE AND SEVERE IMPAIRMENTS IN GENERAL EDUCATION CLASSES

By

Myong-Ye Bang

The researcher had two primary purposes in conducting this study. The first was to investigate whether the criterion-related validity coefficient of the Instructional Strategy Usage (ISU) instrument developed by the researcher is statistically significant. The second was to investigate the factors related to general education teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

One hundred ten general education teachers who were teaching students with moderate and severe impairments responded to the questionnaire. The subjects were from 72 school buildings in 47 local school districts in Michigan. To obtain evidence of criterion-related validity of the ISU instrument, the researcher and a trained observer who is a teacher consultant with a master's degree in special education observed a subsample of 15 teachers in their classroom. These teachers were from 10 school buildings in 10 local school districts.

The research findings were as follows:

1. The criterion-related validity coefficient of the Instructional Strategy Usage (ISU) instrument was statistically significant.

2. Years of teaching experience of general education teachers was significantly negatively related to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

3. General education teachers' training in the field of special education was unrelated to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

4. General education teachers' collaboration with special education teachers, including a building principal's support, was significantly positively related to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

5. Self-perceived efficacy of general education teachers was unrelated to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

INTRODUCTION

Progressive inclusion has been a steady trend in the history of education for students with impairments (Reynolds & Birch, 1982). Public Law 94-142, which was passed in 1975, requires states to provide a free appropriate education to all children between the ages of 3 and 21 who have impairments. Following the implementation of PL 94-142, more than 650,000 previously unserved students were provided with a public education (U.S. Department of Education, 1988). But one of the key principles of PL 94-142, least restrictive environment (LRE), legitimates segregated educational settings by allowing school personnel to remove students with impairments from general education classes when education in those classes with the use of supplementary aids cannot be achieved satisfactorily (Taylor, 1988).

The federal government proposed the Regular Education Initiative (REI) for improving instruction for students with learning problems within general education classrooms (Will, 1986). Will (1986) suggested that building-level administrators must be empowered to assemble the appropriate human and material resources for delivering effective educational services to all students on the basis of individual educational needs as opposed to eligibility for special education programs. Will also suggested that the federal government support state and local experimental trials in which students with impairments are integrated into general education classes. However, the REI has been criticized for not addressing the need to include students

with severe and profound impairments in general education programs (Lipsky & Gartner, 1989; Stainback, Stainback, & Forest, 1989).

In recent years, considerable emphasis has been placed on how to include all students in the mainstream of school and community life. The goal of inclusive education is to ensure that all students are included as equal members of the school community and provided with the appropriate educational program required for them to learn successfully (Stainback & Stainback, 1992).

The physical integration of students with impairments into general education settings does not guarantee the quality of educational practices for them. To address this problem, a number of researchers recently have emphasized the need to evaluate integrated general education programs, arguing that students with impairments in integrated educational settings should not be victimized by ineffective educational practices (Bender, 1986).

Evaluations of integrated general educational programs can be classified into three types. The first type of evaluation of integrated programs focuses on student outcomes, such as self-concept, academic achievement, and/or social skills (Gresham, 1982; Salend, 1984; Wang & Birch, 1984, 1985). The second type of evaluation of integrated programs focuses on teacher attitudes or perceptions regarding integration of students with impairments into general education settings (Aloia & Aloia, 1983; Hudson, Graham, & Warner, 1979). The last type of evaluation of

integrated programs focuses on the instructional practices used in integrated general education classes (Bender, 1986; 1988, Bender & Ukeje, 1989).

Evaluations of student outcomes and teacher attitudes are only indirect indicators of effective instructional practices (Bender, 1988). There may be no direct causal relationship between instructional practices and student outcomes because such variables are influenced by other environmental and cognitive factors, such as family characteristics, the student's lack of neurological organization, test anxiety, and language ability (Bender, 1986). A teacher's favorable attitude toward the integration of students with impairments does not guarantee that the teacher will provide effective instructional practices for those students (Bender, 1986). In other words, teachers' overt behaviors cannot necessarily be predicted by their attitudes (Bem, 1970; Fishbein & Azjen, 1975).

To address the above-mentioned problems, a number of researchers have recommended assessing the instructional strategies used by general education teachers in integrated general education classes (Bender, 1986, 1988; Bender, Smith, & Frank, 1988; Bender & Ukeje, 1989; McKinney & Hocutt, 1988; Teacher Education Division of the Council for Exceptional Children [TED], 1987; Ysseldyke & Christenson, 1987). These researchers have argued that effective instructional practices for most students with impairments are similar to those for nonimpaired students (Bickel & Bickel, 1986). In support of this argument, there is very little evidence to suggest that

qualitatively different forms of instruction are needed for students who differ in aptitude, achievement level, socioeconomic status, ethnicity, or learning style (Brophy, 1987). Ferguson and Jeanchild (1992) also proposed that "the instructional components that are critical to teaching are the same for all students, although they may be used in various ways to accommodate different learning needs and styles" (p. 171).

A number of researchers have investigated the factors related to general education teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in their general education classes. To design effective and meaningful support systems for general education teachers who teach students with moderate and severe impairments, further information concerning the factors related to teacher's instructional strategy usage with students is required.

Purpose of the Study

The researcher had two primary purposes in conducting this study. The first was to investigate whether the criterion-related validity coefficient of the Instructional Strategy Usage (ISU) instrument developed by the researcher is statistically significant. The second was to investigate the factors related to general education teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

Research Questions

To investigate the factors related to the instructional strategy usage of general education teachers, the following research questions were posed:

1. Is the criterion-related validity coefficient of the Instructional Strategy Usage (ISU) instrument statistically significant?

2. Is the amount of teaching experience of general education teachers related to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes?

3. Is general education teachers' training in the field of special education, as measured by the number of days they have attended inservice training workshops on the education of students with impairments, related to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes?

4. Is general education teachers' collaboration with special education teachers, including a building principal's support, related to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes?

5. Is the self-perceived efficacy of general education teachers related to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes?

METHODOLOGY

The design of this study can be characterized as correlational; a single group of subjects was measured on many variables (Campbell & Stanley, 1963). The predictive power of four independent variables was tested in predicting general education teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes. The predictor variables were (a) teachers' amount of teaching experience; (b) general education teachers' training in the field of special education; (c) collaboration between general education and special education teachers; and (d) self-perceived efficacy of teachers.

Sample

One hundred ten general education teachers who were teaching students with moderate and severe impairments were the subjects for this research. The full-time equivalency (FTE) of those students in general education classes was greater than 50%. That is, the subjects were teaching students with moderate and severe impairments who were spending more than 50% of their school time in general education classes. The subjects were from 72 school buildings in 47 local school districts in Michigan.

Of the 110 subjects, 25 (21.9%) were male and 85 (74.6%) were female. The proportion of male and female teachers in the study was representative of the proportion of male and female teachers in the United states because 67%

of all teachers in the United States are female (Levine, 1987). The subjects included both elementary-level teachers in self-contained classrooms (n = 65 for kindergarten through Grade 5) and middle school and high school teachers in departmentalized programs (n = 45 for Grades 6 through 12). Demographic information on the sample is presented in Table 1.

Table 1. Demographic Information on the Survey Sample

Variable	n (%)
Gender	
Male	25 (22.7%)
Female	85 (77.3%)
School level assignment	
Elementary (K-5)	65 (59.2%)
Middle (6-8)	39 (35.4%)
High (9-12)	6 (5.4%)

To obtain evidence of the criterion-related validity of the Instructional Strategy Usage (ISU) instrument, the researcher and a trained observer who is a teacher consultant with a master's degree in special education observed a subsample of the sample (n = 15). Of the 15 subjects observed, 3 (20.0%) were male and 12 (80.0%) were female. The subjects included both elementary-level teachers in self-contained classrooms (n = 8 for Grades 1

through 5) and middle school and secondary school teachers in departmentalized programs (n = 7 for Grades 6 through 9). Demographic information on the observation sample is presented in Table 2.

Table 2. Demographic Information on the Observation Sample

Variable	n (%)
Gender	
Male	3 (20.0%)
Female	12 (80.0%)
School level assignment	
Elementary (K-5)	8 (53.3%)
Middle (6-8)	6 (40.0%)
High (9-12)	1 (6.7%)

Instrumentation

The instruments used in the study were a questionnaire and a classroom observation checklist. The questionnaire given to 110 general education teachers was composed of four parts: (a) demographics, which included teaching experience and educational background; (b) the Instructional Strategy Usage (ISU) instrument; (c) the teacher collaboration scale; and (d) the scale of self-perceived efficacy of teachers. The classroom observation checklist was used in measuring general education teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

Procedures

This study was conducted in three phases. First, a pilot study was conducted. The primary purpose of the pilot study was to test the instruments used in the research with a sample of seven general education teachers (one male and six females) who were teaching students with moderate and severe impairments. Those seven teachers were from two local school districts. The subjects included both elementary-level teachers in self-contained classrooms (n = 5 for Grades 1 through 5) and middle school or high school teachers in departmentalized programs (n = 2 for Grades 6 through 12).

During the second phase, data were collected using the teacher survey. One hundred ten general education teachers who were teaching students with moderate and severe impairments in integrated general education classrooms completed the survey during February and March 1992.

Of the 195 teachers who were contacted, 67 (34.4%) responded to the initial mailing. The researcher then sent a second mailing to the 128 teachers who had not responded. Of those teachers, 38 (29.7%) responded to the second mailing. A third mailing was sent to the 90 teachers who had not yet responded; five of them (5.6%) responded. In total, 110 general education teachers from 72 school buildings responded to the questionnaire. The response rate was 56.4%. The return rates from the three mailings are shown in Table 3.

Table 3. Return Rate of Questionnaires

	Questionnaires Sent	Total Returned (%)
Initial mailing	195	67 (34.4%)
Second mailing	128	38 (29.7%)
Third mailing	90	5 (5.6%)
Total		110 (56.4%)

The third phase of data collection involved observing the instructional strategies of a subsample of teachers. The researcher sent a cover letter and a response form to 110 teachers who responded to the questionnaire (see Appendix F). Fifteen teachers from 10 local school districts allowed the researcher to observe them in their classrooms. The researcher and a trained observer who is a teacher consultant with a master's degree in special education observed the 15 teachers for approximately 2 hours each and interviewed them for a half-hour during April and May 1992.

Before data collection began, the University Committee on Research Involving Human Subjects (UCRIHS) at Michigan State University reviewed the questionnaire and the classroom observation checklist to ensure the protection of human subjects and subsequently approved the study (Appendix G). The researcher maintained confidentiality throughout the study. Only the researcher and her adviser had access to the data. During the entire process, no complaints or procedural problems were encountered.

DATA ANALYSIS

The statistical Package for the Social Sciences (SPSS - X) was used to analyze the data collected in this study. The analysis of data was divided into four phases. First, a coefficient alpha was calculated to assess the internal consistency of the scales for measuring general education teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes (24 items - .89). After eliminating two items with low corrected item-total correlations, a coefficient alpha for the Instructional Strategy Usage (ISU) instrument and the classroom observation checklist was computed (22 items - .90).

Next, to obtain evidence of the criterion-related validity, the researcher computed the correlation coefficient and the validity coefficient for true scores on the ISU instrument and the classroom checklist. The results of the validity analysis of the ISU instrument are reported in Table 4.

Table 4. Validity Analysis of the ISU Instrument (N = 15)

Correlation coefficient	=	.57
Coefficient alpha of the ISU instrument	=	.90
Coefficient alpha of the classroom observation checklist	=	.89
Validity Coefficient for true scores	=	.64

Third, coefficient alpha were calculated to assess the internal consistency of the measures of the independent variables. After eliminating items with low corrected item-total correlations, coefficient alphas of the scale of teacher collaboration (9 items - .90) and the scale of self-perceived efficacy of teachers were computed (13 items - .78).

Fourth, the researcher employed multiple regression to investigate the relationship between the dependent variable and the four independent variables. The total score on the Instructional Strategy Usage (ISU) instrument was used as the dependent variable, and the four independent variables were used as predictors. The results of four-variable regression analysis for prediction of instructional strategy usage are presented in Table 5.

Table 5. Results of Four-Variable Regression Analysis

Multiple R	.60		
R Square	.36	R Square Change	.36
Adjusted R Square	.34	F Change	14.19
Standard Error	16.54	Signif F Change	.00

Analysis of Variance

	df	Sum of Squares	Mean Square
Regression	4	15518.46	3879.61
Residual	101	27616.92	273.43

F = 14.19 Signif. F = .00

As shown in Table 5 , the four-variable regression model was statistically significant, [F (4,101) = 14.19; p < .05], and 35.98% of the total variance in instructional strategy usage was explained by the four variables included in the model. The researcher computed the partial regression coefficients for those four predictors to investigate which predictors had statistically significant relationships with the dependent variable.

The t-test results of the partial regression coefficients of the four independent variables are presented in Table 6 . The partial slope is the average change in the dependent variable associated with a unit of change in an independent variable, when the other independent variables are held constant (Lewis-Beck, 1980). The researcher tested whether an interaction effect existed among the independent variables. An interaction effect exists when the effect of one independent variable depends on the value of another independent variable (Lewis-Beck, 1980). However, there was no interaction effect among the independent variables.

Table 6. The t-test Results of Four Predictors

Variable	B	SE B	Beta	T	Sig. T
Experience	-.55	.19	-.23	-2.85	.01
Training	.08	.05	.15	1.76	.08
Collaboration	.76	.15	.43	4.98	.00
Efficacy	.31	.29	.09	1.09	.28
(Constant)				1.63	.11

As shown in Table 6, both years of teaching experience and teacher collaboration were statistically significant predictors at the .05 level. However, training in the field of special education and self-perceived efficacy of teachers were not statistically significant predictors at the .05 level.

The two-variable regression model including statistically significant predictors was statistically significant [F (2,105) = 26.13; p < .05], and 33.23% of the total variance in instructional strategy usage was explained by years of teaching experience and teacher collaboration. The raw-score regression equation as follows:

ISU = 33.83 - .51 (teaching) + .89 (collaboration)
(6.04) (-2.65) (6.12)

R Square = .33 Standard Error = 16.89

where the values in parentheses are the t ratios,

and R square = coefficient of multiple determination.

Summary of the Research Findings

The findings for the five research questions are as follows:

1. The criterion-related validity coefficient of the ISU instrument was statistically significant.

2. The amount of teaching experience of general education teachers was significantly negatively related to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

3. General education teachers' training in the field of special education was unrelated to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

4. Collaboration between general education and special education teachers, including a building principal's support, was significantly positively related to general education teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

5. Self-perceived efficacy of general education teachers was unrelated to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

Conclusions

The following conclusions were drawn from the study findings.

1. The criterion-related validity coefficient of the Instructional Strategy Usage (ISU) instrument is statistically significant. Therefore, the ISU instrument can be used for evaluating general education teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

2. The amount of teaching experience of general education teachers was significantly negatively related to these teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes. Therefore, it cannot be assumed that more experienced general education teachers will use more instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

3. General education teachers' training in the field of special education, as measured by the number of special education courses they have taken and the number of days of inservice training attendance, was unrelated to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes. Therefore, it cannot be assumed that general education teachers who have taken more special education classes and participated in more inservice training workshops on the education of students with impairments will use more instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes. However, considering that the significance level of the t value of teachers' training in the field of special education was .80, this conclusion should be made with caution.

4. General education teachers' collaboration with special education teachers, including a building principal's support, was significantly positively related to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes. Therefore, it can be assumed that general education teachers' collaboration with special education teachers, including a building principal's support, is important for improving general education teachers' use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes.

5. Self-perceived efficacy of general education teachers, as measured by the scale developed by Gibson and Dembo (1984), was unrelated to their use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes. Therefore, it cannot be assumed that general education teachers with higher self-perceived efficacy will use more instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classes than will teachers with lower self-perceived efficacy.

LIST OF REFERENCES

Aloia, G. F. & Aloia, S. C. (1983). Teacher expectations questionnaire: A scale to help determine the most appropriate placement for the mainstream handicapped student. The Journal for Special Education, 19, 11-20.

Bang, M. (1992). Factors related to the use of instructional strategies that facilitate inclusion of students with moderate and severe impairments in general education classess. Unpublished doctoral dissertation. Lansing, MI: Michigan State University.

Bem, D. J. (1970). Beliefs, attitudes, adn human affairs. Belmont, CA: Brooks/Cole.

Bender, W. N. (1986). Effective educational practices in the mainstream setting: Recommended model of reevaluation of mainstream teacher classes. The Journal of Special Education, 20, 475-487.

Bender, W. N. (1988). The other side of placement decisions: Assessment of the mainstream learning environments. Remedial and Special Education,, 9(5), 28-33.

Bender, W. N., Smith, J. K., & Frank, J. N. (1988). Evaluation of mainstream classes: A scale for determining appropriate class placements. Education, 108, 540-545.

Bender, W. N. & Ukeje, I. C. (1989). Instructional strategies in mainstream classrooms: Prediction of the strategies teachers select. Remedial and Special Education, 10(2), 23-30.

Bickel, W. E. & Bickel, D. D. (1986). Effective schools, classrooms, and instruction: Implications fo rspecial education. Exceptional Children, 52, 489-500.

Brophy, J. E. (1987). Research linking teacher behavior to student achievement: Potential implications for instruction of Chapter I students. Unpublished manuscrip. East lansing, MI: Michigan State University.

Campbell, D. T. & Stanley, J. C. (1963). Experimental and quasi-experimental designs fo rresearch. Chicago:Rand-McNally.

Ferguson, D. L. & Jeanchild, L. A. (1992). It's not a matter of method. In S. Stainback & W. Stainback (Eds.), Curriculum considerations in inclusive classrooms (pp. 159-174). Baltimore: Paul H. Brookes.

Fishbein, J. & Ajzen, I. (1975). Belief, attitude, intention, and behavior. Reading, MA: Addison-Wesley.

Gresham, F. M. (1982). Misguided mainstreaming: The case for social skills training with handicapped children. Exceptional Children, 48, 422-433.

Hudson, F., Graham, S., & Warner, M. (1979). Mainstreaming: An examination of the attitudes and needs of regular classroom teachers. Learning Disability Quarterly, 2, 58-62.

Levine, S. L. (1987). Peer support for women in middle management. Educational Leadership, 45(3), 74-75.

Lewis-Beck, M. S. 91980). Applied regression: An introduction. Beverly Hills: Sage Publications.

Lipsky, D. K. & Gartner, A. (1989). Beyond separate education: Quality education for all. Baltimore: Paul H. Brookes.

McKinney, J. D. & Hocutt, A. M. (1988). The need fo rpolicy analysis in evaluating the regular education initiative. Journal of Learning Disabilities, 21, 12-18.

Public Law 94-142, The Education for All Handicapped Children Act, 1975, Sec. 612(5), B.

Reynolds, M., Birch, J. (1982). Teaching exceptional children children in all America's schools. Reston, VA: Council for Exceptional Children.

Salend, S. J. (1984). Factors contributing to the development of successful mainstreaming programs. Exceptional Children, 50, 409-419.

Stainback, S. & Stainback, W. (1992). Curriculum considerations in inclusive classrooms: Facilitating learning for all students. Baltimore: Paul H. Brookes.

Stainback, S., Stainback, W., Forest, M. (Eds.). (1989). Educating all students in the mainstream of regular education. baltimore: Paul H. Brookes.

Taylor, S. J. (1988). Caught in the continuum: A critical analysis of the principle of the least restrictive environment. Journal of the Association for the Severely Handicapped, 13(1), 41-53.

Teacher Education Division of the Council for Exceptional Children. (1987). The regular education initiative. Journal of Learning Disabilities, 20, 289-293.

Wang, M. C. & Birch, J. W. (1985). Comparison of a full-time mainstreaming program and a resource room approach. Exceptional Children, 51, 33-40.

Will, M. C. (1986). Educating children with learning problems: A shared responsibility. Exceptional Children, 52, 411-416.

U.S. Department of Education (1988). Tenth annual report to the Congress on the implementation of the Handicapped Act. Washington, DC: Author.

Ysseldyke, J. E/. & Christenson, S. L. (1987). Evaluating students' instructional environments. Remedial and Special Education, 8(3), 17-24.